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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/555,707 | 07/25/2000 | LIONEL TRANCHARD | 11345.015001 | 9457 |

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EXAMINER

MOORTHY, ARAVIND K

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2131

DATE MAILED: 02/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|---------------------------------------|---|--|
| Office Action Summary | Application No. 09/555,707 | Applicant(s) TRANCHARD ET AL. | |
| | Examiner Aravind K. Moorthy | Art Unit 2131 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 5-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is in response to the amendment filed on 1 November 2005.
2. Claims 1-14 are pending in the application.
3. Claims 1, 2 and 5-14 have been rejected.
4. Claims 3, 4, 15 and 16 have been cancelled.

Response to Arguments

5. Applicant's arguments with respect to claims 1, 2 and 5-14 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 5 and 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wasilewski et al U.S. Patent No. 5,870,474 in view of Elstermann U.S. Patent No. 6,771,657 B1.

As to claim 1, Wasilewski et al discloses a digital audiovisual transmission system, comprising:

a multiplexer [column 12, lines 20-42]; and

a scrambling unit physically separate from the multiplexer [column 12, lines 20-42],

wherein the scrambling unit comprises:

an input for receiving an assembled transport packet stream from a the physically separate multiplexer [column 9, lines 59-67],

a scrambling device for scrambling the received transport stream according to a randomizing control word [column 7 line 64 to column 8 line 21], and

an output for sending the scrambled transport stream to a transmitter means for subsequent transmission, the scrambling of the transport packet stream by the scrambling unit being independently of the multiplexer operations [column 12, lines 20-42].

Wasilewski et al does not teach that the scrambling unit further comprises a packet insertion means for inserting transport packet data in the transport stream. Wasilewski et al does not teach that the packet insertion means inserts a packet of data in the transport stream by detecting the presence of a null packet and replacing a null packet by the packet to be inserted.

Elstermann teaches extracting null packets and/or nonessential packets of the first data stream, providing an annotation packet that provides information regarding the extracted packets, and inserting the annotation packet and program packets of the first program into the input transport stream in place of null packets of the second data stream to form an output transport stream [column 2, lines 17-28].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Wasilewski et al so that the null packets and/or nonessential packets would have been extracted. An annotation packet that provided information regarding the extracted packet would have been provided. The annotation packet and the

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program packets of the first program would have been inserted into the input transport stream in place of the null packets of the second data stream to form an output transport stream.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Wasilewski et al by the teaching of Elstermann because it allows the delivery of multiple non-real-time digital TV programs and other content with little to no impact to the quality of content delivered in real-time via the same transport stream [column 2, lines 6-16].

As to claim 2, Wasilewski et al teaches that the scrambling device is adapted to carry out scrambling on some or all of the payload of selected packets of the transport stream packet [column 7, lines 29-54].

As to claim 5, Wasilewski et al teaches that the scrambling unit further comprises packet filter means for identifying and copying to a memory part or all of a predetermined transport packet [column 18, lines 1-23].

As to claim 9, Wasilewski et al teaches that the scrambling unit further comprises packet ID re-mapping means for changing the packet ID value assigned to a predetermined packet or set of packets [column 13 line 66 to column 14 line 23].

As to claim 10, Wasilewski et al teaches that the scrambling unit is part of a scrambling system [column 8, lines 8-47]. Wasilewski et al teaches that the scrambling system further comprises central control means for generating a control word sent to and received by the scrambling unit for scrambling the transport stream [column 8, lines 8-47].

As to claim 11, Wasilewski et al teaches that the scrambling system further comprises one or more access control systems connected to the central control means and adapted to

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receive a control word supplied by the central control means and to send back to the central control means an encrypted message containing the control word [column 8 line 61 to column 9 line 30].

As to claim 12, Wasilewski et al teaches that some or all of the data sent from the central control means to the scrambling unit is authenticated by the central control means by generation of a signature in accordance with a secret encryption key [column 10 line 59 to column 11 line 23].

As to claim 13, Wasilewski et al teaches that the scrambling system comprises a plurality of scrambling units and associated central control means associated with the generation of a single transport stream [column 8, lines 8-30].

As to claim 14, Wasilewski et al teaches that the scrambling unit is adapted to store its working configuration characteristics and/or the current control word value [column 9, lines 59-67].

7. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wasilewski et al U.S. Patent No. 5,870,474 and Elstermann U.S. Patent No. 6,771,657 B1 as applied to claim 1 above, and further in view of Sato et al U.S. Patent No. 5,566,174.

As to claims 6 and 7, the Wasilewski-Elstermann combination does not teach that the scrambling unit further comprises packet deletion means for deleting a predetermined packet or set of packets. The Wasilewski-Elstermann combination does not teach that the packet deletion means deletes a packet by transforming the packet ID of the packet to that of a null packet.

Sato et al teaches packet deletion means by transforming the packet ID of the packet to that of a null packet [column 10, lines 31-41].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the Wasilewski-Elstermann combination so that there would have been have been packet deletion means. The packets would have been deleted by transforming the packet ID of the packet to that of a null packet.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the Wasilewski-Elstermann combination by the teaching of Sato et al because it reduces the overflow of packets.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wasilewski et al U.S. Patent No. 5,870,474 and Elstermann U.S. Patent No. 6,771,657 B1 as applied to claim 1 above, and further in view of Woodhead et al U.S. Patent No. 5,640,388.

As to claim 8, the Wasilewski-Elstermann combination does not teach that the scrambling unit further comprises packet counting means for counting the number of packets of a predetermined packet ID value in the received transport data stream.

Woodhead et al teaches packet counting means for counting the number of packets of a predetermined packet ID value in the received transport data stream [column 12 line 66 to column 13 line 10].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the Wasilewski-Elstermann combination so that there would have been a counter for packet counting means for counting the number of packets of a predetermined packet ID value in the received transport data stream.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the Wasilewski-Elstermann combination by the teaching of

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Woodhead et al because it makes sure the buffer is sufficiently sized to prevent an overflow or underflow [column 13, lines 11-23].


Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aravind K. Moorthy whose telephone number is 571-272-3793. The examiner can normally be reached on Monday-Friday, 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aravind K Moorthy 
February 3, 2006


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